

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAMELA IRENE LABUHN, WILLIAM JOSEPH GHUNDRLIK, JR.,
and SCOTT ANTHONY RUSH

Appeal No. 1999-2764
Application No. 08/863,228

ON BRIEF

Before CALVERT, FRANKFORT, and GONZALES, Administrative Patent Judges.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 to 4 and 9 to 11. The other claims remaining in the application, 6 to 8 and 12 to 14, have been indicated as allowable.¹

The claims on appeal are drawn to a method of managing deceleration of a succeeding vehicle having an adaptive cruise

¹ See the Supplemental Examiner's Answer, p. 3 (Paper No. 16, Feb. 2, 2000).

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control system, and are reproduced in the Corrected Appendix
filed on January 6, 2000.

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The references applied in the final rejection are:

Deering 1992	5,173,859	Dec. 22,
Hibino et al. (Hibino '426) 7, 1995	5,396,426	Mar.
Labuhn et al. (Labuhn) 1995	5,454,442	Oct. 3,
Chakraborty 1997	5,659,304	Aug. 19,
	(filing date Mar. 1,	
1995)		
Hibino et al. (Hibino '473) 1997	5,684,473	Nov. 4,
	(filing date Mar. 24,	
1995)		

Claims 1 to 4 and 9 to 11 stand finally rejected under
35 U.S.C. § 103(a) as unpatentable over the following
combination of references:

- (1) Labuhn or Deering, in view of Chakraborty;
- (2) Hibino '426 or '473, in view of Chakraborty.

The Deering patent discloses an adaptive speed control system carried by a succeeding vehicle 10, traveling at the speed V_0 and acceleration A_0 . Preceding vehicle 10 is vehicle 12, traveling at speed V_T , at a range (distance from vehicle 10) of RNG_A . The system has two modes: mode 1, in which the actual range RNG_A between the two vehicle is greater than a desired range RNG_D , and mode 2, in which RNG_A is less than

RNG_D. The operation of the system is summarized in col. 2, lines 54 to 66, as:

In general, mode 1 control basically controls vehicle speed in a conventional manner, such that the vehicle 10 approaches the desired range, but does not violate it, i.e. does not allow range to be less than the desired range. Mode 2 basically establishes, based on the driver's spacing input, an absolute minimum distance, shown in FIG. 1 as D_{MIN}, and controls vehicle deceleration A_D such that as range approaches D_{MIN}, V_O approaches V_T. When A_D, which decreases in magnitude as V_O approaches V_T, reaches a predetermined minimum deceleration value, it is held at that value until RNG_A is approximately equal to RNG_D. Mode 1 control then operates to control the vehicle speed.

Chakraborty discloses a warning system usable in a vehicle having a cruise control system which may automatically decelerate the vehicle (col. 5, lines 45 to 52). Upon detection of a forward (preceding) vehicle, the system determines the deceleration capability of the vehicle on it is mounted, and then determines the potential for a collision, i.e., if the vehicle's deceleration capability is insufficient to avoid a collision without operator intervention (col. 2, lines 35 to 40; col. 7, line 29, to col. 8, line 10). If the system determines that a collision is possible, the operator

is warned via a buzzer, light, or the like (col. 8, lines 8 to 10).

At pages 3 to 4 of the answer, the examiner acknowledges that Deering does not specifically teach controlling deceleration when a vehicle enters the path of hte controlled vehicle and will require at least a sudden deceleration of the controlled vehicle. Although the examiner subsequently states on page 7 of the answer that "the primary reference [Deering] is sufficient to provide support for the claimed limitations," he also takes the position that the claimed subject matter would have been obvious in view of Chakraborty's disclosed collision prediction warning system.

We will not sustain this rejection. First considering claim 1, the last step of that claim recites:

attenuating the inverse responsiveness of the deceleration function when the new inter-vehicle spacing does not exceed a predetermined inter-vehicle spacing.

The examiner has not pointed out specifically, nor do we find, where in Deering there is any disclosure of alternating the inverse responsiveness of the Deceleration function, particularly when the spacing between Deering's vehicles 10

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and 12 does not exceed a predetermined spacing, as claimed. Chakraborty does not cure this deficiency, for even if one of ordinary skill were to modify the Deering system in view of Chakraborty, the result would be the addition of a special warning the vehicle operator if a collision with the preceding vehicle were predicted.² We fail to see how the method as recited in claim would read on the operation of such a system.

The combination of Labuhn and Chakraborty is considered deficient for the same reasons.

Accordingly, rejection (1) will not be sustained with respect to claim 1, nor, likewise, as to claims 4 and 10, the other independent claims on appeal, or as to dependent claims 2, 3, 9 and 11.

² Moreover, it appears that Deering already discloses such a warning signal; See, e.g., col. 9, lines 38 to 50.

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Turning to the Hibino reference, we note that Hibino '426, like appellants is concerned with preventing abrupt deceleration of a controlled vehicle even when another vehicle unexpectedly breaks in ahead of it (col. 3, lines 11 to 14). Here again however, as with the Deering reference discussed above, we do not find that all the limitations of the appealed claims are met even when either Hibino patent is combined with Chakraborty in the manner, proposed by the examiner. While the examiner states on page 5 of the answer that Hibino '426 alternates the deceleration so as to decrease deceleration "as the inter-vehicle distance is larger than [sic: than] a predetermined value," this is contrary to the requirement of claim 1, supra (and the other appealed claims) that the increase responsiveness of the deceleration function is alternated when the new inter-vehicle spacing does not exceed a predetermined spacing.

We therefore will not sustain rejection (2).

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Conclusion

The examiner's decision to reject claims 1 to 4 and 9 to 11 is reversed.

REVERSED

IAN A. CALVERT)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JOHN F. GONZALES)	
Administrative Patent Judge)	

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REVERSED

Prepared: June 7, 2001